

Amendment and Response Under 37 C.F.R. 1.116

Applicant: David E. Francischelli et al.

Serial No.: 10/792,178

Filed: March 3, 2004

Docket No.: M190.253.101/P-8575.06

Title: VIBRATION SENSITIVE ABLATION DEVICE AND METHOD

REMARKS

The following remarks are made in response to the Final Office Action mailed September 24, 2007. Claims 25-33 were rejected. With this Response, claim 25 has been amended. Claims 25-33 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 102

Claims 25, 26 and 28-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Nardella US Patent No. 5,733,281. Claim 25 is an independent claim, and claims 26 and 28-33 depend from claim 25. With this response, claim 25 is amended to include the features of “sensing with a sensor positioned adjacent the electrode the vibration of the organic tissue being ablated, where the vibration is self-generated in the organic tissue in response to the ablation.” Applicants respectfully submit that these features are neither taught nor made obvious in Nardella ‘281 and the prior art of record.

Nardella ‘281 teaches an ablation tool with an ultrasonic feature. The ablation tool sends out an acoustic signal and detects the reflected signal off of the surrounding tissue to determine the energy effects of the surrounding tissue. The feedback system adjusts the energy to the ablation tool based on this determination. Specifically, the Nardella ‘281 specification set out at column 8, lines 38-48, “In operation, the pulse generator 150 emits an electrical pulse along conductor 152 to the transducer 20. The transducer, in response, resonates and emits ultrasonic energy having a selected frequency. . . . The ultrasonic energy is reflected partly by the tissue and partly by the surrounding gas, e.g., steam, that is present at the surgical site. The reflected ultrasound energy is received by the transducer, which then produces electrical signal corresponding to the intensity of the reflected ultrasonic energy.”

Nardella ‘281 does not teach the features of amended claim 25. In the amended features, “the vibration of the organic tissue being ablated . . . is self-generated in the organic tissue in response to the ablation.” There is no corresponding feature in Nardella ‘281 because the measured “vibration” in the prior art is reflected from an ultrasonic signal transmitted with a transducer and not “self-generated in the organic tissue” as set forth in the claim. As described

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throughout the specification, the organic tissue begins to vibrate in response to the ablation. This is a different vibration than that of reflected ultrasound that is generated with the transducer.

In addition, the teachings of prior art do not make obvious the newly claimed features of claim 25. There is no recognition in the prior art of the claimed "self-generated [vibration] in the organic tissue in response to the ablation" that can be detected to predict a steam pop as set forth throughout the specification. In all instances, the initial signal in Nardella '281 is generated from the device transducer and the return signal from the organic tissue is a reflected signal off of the tissue. Nardella does not recognize the natural vibration in the organic tissue as a result of the ablation and therefore cannot make obvious a modification that does not rely on reflected ultrasound.

Accordingly, Applicants respectfully submit that claim 25 is patentably distinguishable from the prior art of record and request removal of the rejection. Further, claims 26 and 28-33, by virtue of their dependency are patentably distinguishable over the prior art of record. Applicants respectfully request removal of the rejection based on 35 U.S.C. 102.

Claim Rejections under 35 U.S.C. § 103

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nardella US Patent No. 5,733,281 in view of Nardella US Patent No. 5,334,193. Applicants respectfully submits that claim 27 is patentably distinguishable from the prior art of record. Claim 27 depends on claim 25, which was shown to be patentable over Nardella '281 above. Nardella '193 does not teach the amended features of claim 25 of "the vibration of the organic tissue being ablated . . . is self-generated in the organic tissue in response to the ablation." There is no corresponding feature in Nardella '193 and, as discussed above, there is no corresponding feature in Nardella '281. Because these features are not taught or made obvious in each of the references separately, they cannot be found in any proposed combination of the references. Accordingly, Applicants submit that claim 27 is patentably distinguishable from the prior art combination and respectfully request removal of the rejection based on 35 U.S.C. 103.

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CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 25-33 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 25-33 are respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Rudolph P. Hofmann at Telephone No. (612) 573-2010, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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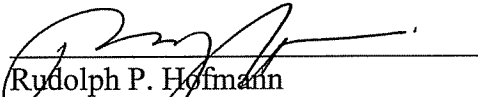
Respectfully submitted,

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